

Concerning measurements of the self-diffusion coefficient of water molecules and time of proton spin-lattice relaxation in plant tissues

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Abstract

Measurements of the coefficient of water molecules self-diffusion (D) and the time of spin-lattice relaxation (T_1) in prosenchyme (elongated) plant cells, whose length significantly exceeding their transverse size, show that the orientation of plant tissues in the H_0 field significantly affects the measured parameters. We conclude that this effect should be taken into account in experiments on the measurement of self-diffusion coefficients and time of proton spin-lattice relaxation in plant tissues containing prosenchyme cells.

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